

# THE MEDICAL EXAMINER.

DEVOTED TO MEDICINE, SURGERY, AND THE COLLATERAL SCIENCES.

EDITED BY J. B. BIDDLE, M. D. AND M. CLYMER, M. D.

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[Vol. I.]

## VARIOLA, OR SMALL-POX.

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[Continued from page 171.]

It appears from the historical sketch I have presented, that small-pox, most probably, broke out at the siege of Mecca, for the first time, though under what peculiar circumstances it was generated, we have no real information. Conformably, however, to the superstitious spirit of that dark age, there is a miraculous account of its origin, almost too ridiculous to be repeated. The infidels tell us, that, at the moment of their greatest distress, a flock of birds came to their succour, with faces like lions, holding in each claw a small stone of the size of a pea, which, being let fall on the Christian army, occasioned an eruption, by which the whole of it was destroyed, while the latter, not to be outdone, ascribed the calamitous event to an impious stratagem of the devil himself. There is a very old tradition, that it was derived from the camel, and I shall, hereafter, mention some facts calculated to show that it may have pre-existed in horned cattle. Its epizootic origin is, on the whole, I think, deemed the most probable conjecture on the subject, though strong objections may be alleged against it.

That variola now arises from a specific contagion, whatever may have been the cause of its primary development, no one doubts. Equally certain is it, that the virus may exist in the form of palpable matter, or as a subtile emanation, the one operating by contact, the other through the medium of the atmosphere. As regards, however, the distance to which this effluvium may be conveyed, there is not the same certainty. Formerly it was believed that it might be wafted by the winds, and infect, within a great though indefinite space. Of late, a different impression is entertained, and the sphere of its influence in the open air is circumscribed to ten or twelve feet. The experiments of Haygarth, confirmed by those of Ryan, Professor at Lyons, seem to render the point tolerably certain. To me, however, it is not improbable, that the contagious principle is connected with the peculiar odour in the disease, and, as far as this may be smelt, is the danger of infection. An opinion of this sort, universally prevails among common people, and perhaps with adequate grounds.

Whether the contagion can be conveyed by *fomites*, has been lately doubted, at which I am not a little surprised, having thought the affirmative evidence very satisfactory. Medical men engaged in the practice of inoculation and attending patients in all stages of small-pox, not conveying the disease, though adopting no precautions against it, by a change of clothes, or otherwise, is the fact mainly relied on, which surely is inconclusive.

More time than such transient visits afford, may be required for the impregnation. The true test would be an exposure to the apparel or bedding of the patient.

Not a little curious, is it, that the contagiousness of the disease, under any circumstances, should so long have escaped detection. No allusion to such a property in it can be traced, till after the time of Sydenham. That close observer, himself unsuspecting of contagion, refers the production of the disease to a peculiar constitution of the season. Boerhaave, however, soon afterwards announced the fact, which has never since been disputed.

It is doubtful, at what period of the disease, this property is acquired; some of the authorities, and, particularly, Heberden and Haygarth, who are among the very highest of them, maintaining that it is not for some days after the appearance of the exantheme, while by others it is alleged that it occurs as early as the preliminary fever, and that the poisonous effluvia escape both from the lungs and the skin. These latter views, however, are without confirmation, as we know that the contagious principle is secreted by the eruption, and have no evidence of its being derived from any other source, it would seem to follow, that it can not exist prior to the formation, and, perhaps, the maturity of the cutaneous affection, though, as in the vaccine, it may possibly be eliminated by the vesicle as well as by the pustule. Nor is it less evident, that since the lungs are destitute of the eruption, they do not concur in the generation or emission of the contagious halitus.

The latent or incubative period of the virus is fourteen days, which, according to my experience, is observed with great regularity. It is for the most part, pretty certain in its effects, and all ages are liable to the disease. Even the fœtus in utero, sometimes, though rarely, becomes infected, and there are several cases recorded by Jenner, of its happening, where the mother entirely escaped, from previous protection. Nevertheless, some individuals, however exposed, have no susceptibility to it, continuing exempt through a long life. It has indeed, been calculated, that one in fifty has such a constitutional immunity. But this estimate seems too large, and, in no instance, is an exemption from it to be too confidently relied on. Examples are numerous, where, after escaping for a term of years, susceptibility has been awakened by some mysterious change of condition, and the disease has attacked, and very often fatally, under such circumstances.

But, while contagion must be admitted as an inherent and uniform quality of small-pox, it is not less certain, that it is materially dependent for its nurture and dissemination, as well as for its infinite modifications, on an epidemic influence. That it ever arises, *de novo*, from the same combination of circumstances, which first called it into existence,



the state of our knowledge is not sufficiently precise, to determine positively. But such was the common opinion of the early historians of the disease, and which is not wanting in support from the manner of its occasional subsequent recurrences. It has broken out, from time to time, without our being able to trace its revival to any concealed contagion, spreading most rapidly, widely, and always in its worst shapes, from country to country, exercising an unequivocal sway over all other diseases; then suddenly disappearing, to return again at some future period, in all which features, conforming to the phenomena and laws of epidemics. The late prevalence of it supplies a striking illustration of this fact. Breaking out at Edinburgh, in a few years it pervaded nearly the whole world, exhibiting every where all those traits which I have mentioned. Thus existing, the cause also proves far more efficient, and operative, so much so, indeed, that it subverts, in many instances, the protection afforded by previous attacks, whether naturally or artificially acquired, and secondary small-pox becomes an ordinary event.

From the histories of the disease, we shall find these statements most abundantly confirmed. Nor are we without more immediate evidence of it. In 1823, when small-pox appeared in this city, after a long interval, it could not be traced to any imported or derivative source of contagion; cases sprang up, as it were, spontaneously, at a distance from each other, independent of any probable intercourse, wearing, universally, a most inveterate character, and the failures of vaccination and variolation were numerous, with some few examples of the disease, previously had in the natural way, affording no security. As further proof of the dominant epidemic influence at the time, it may be stated, that in the whole compass of our experience, never was exhibited such a tendency to cutaneous affections, every disease, whatever might be its nature, displaying in its course, some eruptive appearance, and often of the most anomalous character and aspect.

Notwithstanding the plausibility of the conjecture, to which I have alluded, that the contagion of small-pox, under certain circumstances, is occasionally generated anew, I am not disposed to adopt it. To me it seems more probable, that the semina of contagion, like those of plants, or ova of animals, and particularly of insects, may remain dormant for an indefinite period. Exactly as the latter are hatched into existence, by a proper degree of temperature, and other propitious circumstances, so is required, to bring the former into activity, a peculiar constitution of atmosphere. We are not wanting in proof, that the seminal principle, in each of the instances cited, will endure for a long term of years in a latent state, waiting, as it were, for the vivifying impulse to be supplied,—and why may it not be equally true in regard to contagion? The musquito, the locust, not to enumerate more examples, disappear for a protracted season, having deposited their eggs, to be awakened into life, at some favourable conjuncture. Every agriculturist is aware of the reversions of certain plants, at remote and irregular periods, the seeds of which must have remained in the soil.

As clearly, does it seem, that the material of this, and all other contagious diseases, is governed by a similar law. Much reliance, I am aware, has been placed on the doctrine of equivocal generation, in the explanation of some of the preceding phenomena. But can it be reasonably credited, that any fortuitous combination of elements, which this doctrine supposes, is productive of such definite results?

It may be finally demanded, if the action of the variolous cause can be suspended for months, by change of season only, why may it not be by other influences for years? Thus, we have seen, among ourselves, the disease raging during winter, and ceasing, on the approach of spring, to appear again, on the return of cold weather, and pursuing this order for a lengthened period. It might, perhaps, be shown, though I am not prepared to extend the doctrine so far, that every disease has one definite cause, which is inert or active, according to the presence or absence of those circumstances by which its operation is controlled. Can we, at least, on any other supposition, so easily explain their occasional prevalence on the reverse, and, particularly, epidemic visitations, and their suspensions? Nearly every disease may assume this character, and its being sporadic or more general, mild or otherwise, I think must be referred to the extent and force of the agency by which the cause of the disease is developed and strengthened.

The variolous eruption is so strongly and unequivocally designated, when well evolved, that it can seldom be mistaken. The case with which it may most probably be confounded, is Varicella, or chicken-pox; and, even here, the discriminating circumstances are, for the most part, prominent, and well defined. The latter is preceded by little febrile or other uneasiness, and about the second day of the attack vesicles appear, which, by the fourth or fifth day, dry away,—whereas, at this time, the eruption of small-pox has not gone through even its earliest stage. The eruption, too, in Varicella, is more apt to come out in successive crops, and is, as I have said, vesicular, and not pustular. The vesicle is pointed, and filled with lymph; while that of small-pox is flat, and indented in the middle, and does not lose these peculiarities till it reaches complete maturity, when, distended with pus, it becomes ovate or globular. Devoid of the cellulated structure of the variolous pustule, the varicellous vesicle is, moreover, merely viscid cuticle, easily ruptured, when, or by puncture, the whole of the fluid at once runs out.

Nevertheless, it cannot be denied, that, in some instances, where chicken-pox is very violent, it assumes so much the aspect of small-pox, as to embarrass practitioners the most conversant with the two diseases. Even Willan, so learned in eruptive affections, confesses this; and, I have known the same degree of perplexity to occur in this city. There is also a disease, the *Varioloid*, that has lately prevailed to a great extent, in which the difficulty of diagnosis is sometimes considerable. Generally, however, it may be recognised by the greater mildness of the prelusive fever, by the earlier appearance of the eruption, which is scanty, and rather vesicular than pustular, by the absence of the variolous odour, and by the more



speedy commencement of desiccation,—as well as by its leaving behind, in place of pits, or indentations, a smooth red surface, or small excrescent elevations. As, however, in Varicella, cases of it are not unfrequent, so intimately allied to Variola, in every feature, as to defy the best powers of discrimination.

Little is usually to be apprehended in the discreet or distinct small-pox. The confluent, on the contrary, is always alarming, though less so where the fever is inflammatory, and the vital forces unimpaired. By the aid of common skill, the constitution will work out its preservation.

Never exempt from danger is the typhoid or congestive condition, and, when malignant, scarcely a hope can be indulged. Much may be deduced from some other circumstances. Nearly always fatal is the disease in advanced life, very generally so in the pregnant state, and is most favourable between the second and tenth years of age. The season of puberty, in females, is said to be unpropitious, by a high authority,\* which I have not remarked. An eruption, entirely over the surface, though not confluent, is dangerous, from the injury done to the skin, and is particularly so where the face is thickly covered. The character of the pustules, too, materially influences the result. It is best, when they are elevated, round, environed by a definite red areola, and filled with thick yellow pus,—coming out seasonably, and passing regularly through the several stages to maturity. Deviations in any respect from this are calculated to excite solicitude, and especially where the eruption either lingers in its appearance, or comes out prematurely, or the pustules are flat, and nearly empty, or indurated, or filled with a lymph, or serous, or darkish fluid, and, above all, with blood. The entire cessation of fever, with pallor, and other evidences of collapse, during the eruptive stage, is alarming, and, particularly, if followed by suppression of urine, or recession of the eruption. Either the sudden subsidence of the swelling of the hands, or of the salivation, is a bad indication. Complicated with any of the affections formerly noticed, the danger is considerably enhanced, though less, when inflammatory, than heavily congestive. Laryngitis, however, is an exception, which nearly always proves fatal, on attaining to any height. Great derangement in the cerebral and nervous system, evidenced by tremors, subsultus tendinum, stupor, or delirium, slow and muttering, or wild, particularly the *delirium ferox* of the old writers, is, moreover, of the worst import. Not less so, perhaps, are passive hæmorrhages from the bowels or other parts, or petechiæ, vibices, sloughing of the fauces, and the other signs of what was once considered a putrid diathesis.

The eleventh and thirteenth days are usually the most dangerous, though the eruptive stage throughout is critical, and much is to be apprehended from any extraordinary violence of the secondary fever. But under all circumstances, natural small-pox proves frightfully fatal. It is computed, that one out of four dies, whatever may be the advantage of situation, or the degree of medical skill and attention, and this mortality

takes place, when there is no extraordinary violence in the disease. From the reports of the London Small-Pox Hospital, it appears that, for the last fifty years, the deaths have averaged about thirty, though, on some occasions, amounting to forty per cent. Characterized by the malignity incident to some of the epidemic occurrences of it, two out of three perish, or even a greater proportion. During its last prevalence in this city, we lost, in the beginning, more than one-half in hospital practice. The same degree of mortality has happened elsewhere, and, especially, in the hospital at Ceylon, when the disease prevailed there, epidemically, in the year 1819.

(To be continued.)

DR. HARLAN on *Acetate of Lead in Dysentery and Malignant Cholera.*

PHILADELPHIA, May 28th, 1838.

To the Editors of the Medical Examiner:

*Gentlemen:*—In the American Journal of the Medical Sciences, for May, 1838, there is a detailed account, from the London Medical Gazette, of an article, entitled “On the Treatment of Cholera, by R. J. Graves, M. D.,” who claims as original, the use of Acetate of Lead in this disease. It has been long a subject of complaint against many editors of American Medical Journals, that, in their anxiety to collate and disseminate the latest professional intelligence, from abroad, they, too frequently, neglect the meritorious claims of their brethren, at home.

In the present instance, it is scarcely to be presumed, that the editor of the American Journal of Medical Sciences is ignorant of the claims of the writer to originality, in the application of sugar of lead to the treatment of Dysentery and Malignant Cholera.

In the American Medical Recorder, published in Philadelphia, in 1821, will be found a memoir, by the writer, entitled, “Cases illustrative of the good effects of sugar of lead in Dysentery.” After the detail of cases, successfully treated by the internal use of sugar of lead, the author remarks: “It appears, from the works of Jackson and also of Moseley, that sugar of lead has been used, both in acute and chronic dysentery, in the West Indies; I am convinced, however, that this remedy was not used, in such large doses, with similar views, nor so efficiently, previously to my having used it so very extensively and beneficially, in the obstinate epidemic of 1820. There is no evidence, indeed, that the remedy in question was ever prescribed in acute dysentery, before the summer of 1820, as above referred to.”

As a remedy in dysentery, this medicine has since been extensively resorted to by the profession in succeeding epidemics, both in public and private practice. The successful application of the saccharum saturni to the treatment of dysentery, led the author, very naturally, to the trial of this remedy in malignant cholera, when it occurred in our city, in 1832.

The result of the author's experience in this disease, was published in January, 1835; see “Observations on the Malignant Cholera, as it occurred in Philadelphia, in 1832—Harlan's Me-

\* Richter.



dical and Physical Researches." Very few of the numerous cases treated in the municipal hospital under the control of the author, were here published. In some of these, however, the sugar of lead, as a valuable adjuvant in this disease, stands prominent as one of the means resorted to in the treatment of this fearful malady.

In the work above quoted, the article on the use of sugar of lead in dysentery was republished.

So much for the claims of the writer to originality in the application of sugar of lead, to the treatment of dysentery and malignant cholera. At the same time, he willingly concedes to Dr. Graves the same merit which he claims himself. According to this author's own statement, he, also, was led, for the first time, to the use of the saturnine remedy in the cholera, as it prevailed in Dublin, in July, 1834, by previously observing its good effects in dysentery and diarrhoea, during the months of May and June of 1834.

The doses of the sugar of lead, used by Dr. Graves, were smaller than those previously recommended by American practitioners.

R. HARLAN, M.D.

[The article alluded to, on the treatment of Cholera, by Dr. Graves, appeared also in this Journal, for January 17th, and was copied into other medical periodicals, as well as into the American Journal for May. The omission to notice Dr. Harlan's priority of claim to the recommendation of the remedy in question, was an inadvertence, which we are pleased to have the opportunity to correct, and we presume that the other delinquent Journals will hasten to make a similar *amende*.—Eds.]

## BIBLIOGRAPHICAL NOTICE.

*Boylston Prize Dissertations for the years 1836 and 1837.* By OLIVER WENDELL HOLMES, M. D., Fellow of the Massachusetts Medical Society, and Member of the Société Médicale d'Observation of Paris. Boston: Charles C. Little and James Brown. MDCCCXXXVIII. 8vo. pp. 371.

THE perusal of this exceedingly neat volume has afforded us much pleasure; not only from its intrinsic merit, which is of no mean order, but as the evidence of talent and industry, from which we may expect further valuable contributions to our national medical literature. Dr. Holmes is one of those young American physicians who completed their initiatory studies in Paris, under the immediate eye of the founder of the Numerical Method, and his first literary effort is abundant proof that he has profited amply by the example and instruction of his distinguished preceptor.

The three essays, which form the volume before us, obtained the Boylston Prize for two successive years, and are calculated to impress very favourably

the reader with the diligence, research, and abilities of the author, and entitle him to be considered, in every respect, as a very deserving disciple of the school, under whose auspices he was educated.

The first dissertation is styled "*Facts and Traditions respecting the existence of Indigenous Intermittent Fever in New England.*" In this essay there is compressed in a small compass a vast amount of information, evidently the result of much labor and investigation, much of which must have been uninteresting and profitless. In entering upon this subject, Dr. Holmes had an untrod country to explore, with no landmarks from previous voyagers to cheer him on his way, or assist him in determining his positions. Arid and dubious as was his path, he has contrived to collect much that is curious and valuable, respecting the local medical history of New England, and, moreover, from his unambitious and sensible mode of treating what many might be disposed to deem wearisome and sectional, has produced by no means an uninteresting treatise.

The second dissertation is upon "Neuralgia," and evinces an intimate acquaintance with the bibliography of that protean malady, as well as considerable judgment in the collation. Much originality could not be expected, nor is any pretension made to it. Dr. Holmes has given us what was very much wanted, a concise history of this common affection, with an unbiassed and succinct account of the views entertained by the different authors, as to the nature, treatment, &c. of the disease.

The third, and concluding dissertation is, "On the utility and importance of direct Exploration in Medical Practice," and, to our mind, the most valuable in the collection. The importance of direct exploration of the organs in the treatment of disease is now so universally, and so justly, conceded, that it is difficult to reconcile with this due appreciation the neglect it meets with among practitioners, immediately removed from the head-quarters of medicine. Yet such, unfortunately, is the case. Every physician, in this city, is often meeting with cases, from the surrounding districts, which, had not the general symptoms been relied on to determine the diagnosis, might never, probably, have progressed to the formidable and often intractable condition in which they find them. We feel that we cannot impress with too much earnestness, upon the consideration of our distant readers, this point, and we rejoice in the publication of every work which treats upon the subject, and is calculated to make it more popular and useful.



## THE MEDICAL EXAMINER.

PHILADELPHIA, JUNE 6, 1838.

DR. DRAKE, of the Cincinnati Medical College, announces that he is preparing for the press a work on the elements of Pathology. It is intended, he informs us, chiefly for circulation in the valley of the Mississippi, "as he does not anticipate for it a favourable reception East of the mountains"! Does the doctor, then, set no value on tramontane medical criticism? Can he hold no communion with any of the varieties of opinion that are current here? Or does he suppose, that, from sectional jealousy, his Atlantic brethren are unwilling to do justice to the merits of the West? We cannot impute to Dr. Drake a design to foist his writings into popularity, by fomenting provincial prejudices; we know and appreciate his devotion to the interests of his locality; but we did not expect from him the unphilosophic illiberality, that is evinced in the attempt, (if we are right in giving this construction to his language,) to isolate the valley of the Mississippi from the general republic of medical literature. We are especially adverse to such an isolation, in the case of an author, like Dr. Drake, from the productions of whose talents, the East and West, North and South, must assert their equal claims for edification.

### CLINICAL LECTURES.

LECTURES ON CLINICAL MEDICINE, *delivered at the Philadelphia Medical Institute, by W. W. GERHARD, M. D., Physician to the Philadelphia Hospital, &c.*

#### ACUTE MENINGITIS.

Tuesday, May 15th.—It is my intention, to-day, gentlemen, to continue the discussion of inflammations of the serous membranes, with particular reference to the subject of meningitis. Previously, however, to entering upon this latter topic, I shall call your attention to a case of serous inflammation, which terminated, a day or two ago, at the Hospital, and at the post mortem examination of which, most of you were present yesterday morning. We had, you recollect, acute peritonitis, pervading the whole of the abdomen, the result of a chronic disease of the liver. This disease of the liver was suspected, during the lifetime of the patient, there being sufficient evidence of the enlargement and hardening of the organ. The nature of the affection we found to be cancerous; rounded deposits having the character of vascular sarcoma, were scattered throughout the substance of the liver, offering very fair specimens of this variety of soft cancer. I shall not now enter into an examination of the subject of cancer, but shall confine myself to the acute inflammation of the serous membrane, which was induced by the carcinoma-

tous disease. This case of secondary peritonitis exemplifies the law I enunciated to you, at a previous lecture. Serous inflammations are not dangerous, unless they occur as secondary to a primary lesion of an organ, or are connected with a cachectic state. This secondary inflammation, which is very frequent in the peritoneum, may be either acute or chronic. In the present instance, it was acute, and, probably, arose from the cancerous tumours approaching the surface of the liver. Examples of the chronic secondary inflammation of the peritoneum are most frequent in phthisis, when they are connected with a tuberculous deposit in the serous membrane itself, as was demonstrated to you in one of my last lectures on pathological anatomy.

In the present instance, the peritonitis was acute; it was only within the last two or three days of the patient's life, that he was seized with acute pain over the whole of the abdomen, accompanied with great tenderness on pressure. A tumour was distinctly felt, which I described to you as similar to the pointing of an abscess, and induced me to suspect the existence of suppuration. After the occurrence of the acute pain, the patient sunk rapidly, without any other of the usual symptoms of peritonitis, as vomiting, &c., but his prostration was extremely great. Prostration of this character is a striking symptom of these secondary serous inflammations, and is a most valuable sign in leading us to our diagnosis. You have seen it before in a case of pericarditis succeeding gangrene of the lungs, and in a black man, affected with tuberculous pleurisy. Whenever you have sudden and extreme prostration, supervening upon a chronic disease, in any of the great cavities, you may suspect the existence of secondary inflammation of their serous coats. This was the character of the tubercular peritonitis, depending on perforation of the intestine, noticed in the lecture of the first of May, and I have pointed out to you instances in which there was the same kind of perforation into the cavity of the pleura, following ulceration of the lungs. Perforation is by no means necessary to the production of these secondary inflammations of serous membranes; in the case now before us, the exciting cause was the irritation of the cancerous masses in the liver, but just beneath the peritoneum. The same disease may occur in the ovaries, uterus, and other parts, producing similar results.

Another example of secondary peritonitis, is the affection, generally designated as puerperal fever, a term which is now usually limited to peritonitis, although some physicians are still in the habit of including all febrile diseases of lying-in women under this head. It is imperative, however, to distinguish between these affections. The true secondary peritonitis of puerperal women depends upon the inflammation of the uterus or its veins, or else upon the irritation consequent upon delivery, but it is rendered more frequent and more severe by a strong tendency to suppuration, which extends to all the membranes and organs of puerperal women, and gives rise to the various affections which are sometimes called puerperal fever.

The anatomical signs, in this case, were similar to those observed in the other cases of serous



inflammation, which have come under your notice just now, from their great prevalence in spring and the beginning of summer. Thus, to study pathology, you see how necessary it is to pass through cycles of disease. In these serous inflammations, you see how interlocked they are with all other diseases, occurring sometimes as idiopathic, but, in the large majority of cases, as secondary, being rarely fatal, in the first instance, except when attacking the membranes of the brain. Continuing the subject of special serous inflammations, I shall now proceed to take up the subject of *meningitis*.

Meningitis may be easily confounded with other affections of the brain. We had a case a few weeks ago, of a surgical patient, affected with disease of the urethra, in which it was with some difficulty that we made out, even after death, a satisfactory diagnosis, the point being settled with certainty, merely by the presence of a slight quantity of pus. I was called to the case, only a short time before the man's death, when the only striking symptom was delirium, which I looked upon as merely the concluding act of life. The true nature of the affection was, however, revealed by a post mortem examination. We found, first, a bright injection of the pia mater, which is characteristic of inflammation, particularly, if there be no serum present. Injection of the large vessels is not indicative of inflammation, but merely of congestion, the two not usually co-existing together, a bright arterial tint denoting the one, while the other gives a dark blue color to the surface implicated. The injection was, in this case, spread over the whole surface of the membrane; this is generally the case, although it predominates at one portion, either the base or the summit of the brain. Here, the inflammation predominated at the summit, involving the faculties of the intelligence, while, in children, it usually occupies the base, and is connected with a disturbance of the senses. The distinction I make here, coincides with one of the leading points of phrenology, which allots the faculties of the intellect and of the senses to different portions of the brain. Although I look upon the details of this science, as still founded only upon the imagination, yet the great fact, that the intellect is connected with the summit, and the senses with the base of the brain, is unquestionably true, and confirmed by pathological observations.

The roughness of the serous coat, the arachnoid membrane, is the next point to be noticed in this case. It might seem, that mere effusion of liquid would be enough to characterize inflammation of this membrane. This is not so, however; when it is in a healthy state, there exists a liquid, which is clear and transparent, which in the early stages of real inflammation, becomes altered in quality and deficient in quantity. The inflammation is not so much of the arachnoid membrane, as of the subjacent pia mater, in the meshes of which the morbid products are chiefly retained. True inflammation of the arachnoid is of very rare occurrence. In the present case, we found pus, mixed with lymph in the pia mater, giving a yellowish appearance to the membrane. The three great features, then, of this case, from which we concluded that it was one of acute meningitis, were the injection of the small vessels of the arachnoid, the roughening

of this membrane, and the deposit of lymph and pus beneath it.

The consideration of this case, offers another point of much interest—the connection between affections of the urinary organs and diseases of the brain. Ten years since, my attention was first directed to this subject, upon observing a man, labouring under stricture and thickening of the lining membrane of the urethra, to my great astonishment, perish suddenly from cerebral symptoms. At the Pennsylvania Hospital, two or three years ago, I noticed the death of a man from similar symptoms of disease of the brain, after a few days illness, who had been previously suffering from inflammation of the neck of the bladder and urethra. Various writers, and particularly Lallemand, have called attention to this subject. Dr. Lallemand has dwelt, specially, upon the connection between diurnal seminal emissions dependent upon chronic inflammation, and the development of cerebral disease. The cases of this character, described by Lallemand, he usually traced to chronic gonorrhœa, which, occasioning a thickening of the neck of the bladder, the vesiculæ seminales, and the ductus ejaculatorius, left the latter in a patulous condition, allowing a discharge of semen to take place without ejaculation, during the acts of urining or fecating. The dependence of cerebral disease upon causes of this nature, is a highly important fact, and which will assist you in understanding some affections, otherwise not easily explainable. The seminal weakness, of long continuance, enfeebles the understanding, and, finally, the brain is disordered to such an extent, that medical relief is sought for. I have had several cases of this character, in which the affection was supposed to be connected with a nervous temperament, was, in short, referred to various other causes than the correct one, but, in every instance, I was able to make out the previous existence of chronic gonorrhœa, producing the condition of the urino-genital organs, which I have described, and, through this means, giving use to functional cerebro-nervous disturbance. M. Lallemand attempts to cure these affections by directing his treatment to the urinary organs.

In the case of the man at the Pennsylvania Hospital, to whose death, with cerebral symptoms, I have alluded, we found upon examination after death, the vesiculæ seminales and ductus ejaculatorius destroyed, an abscess behind the verumontanum, filled with pus, and the coats of the bladder contracted and thickened. The particular history of the case was not taken, but it illustrates finely, how chronic diseases of the urethra give rise to affections of the brain, and how causes, trivial in themselves, may produce serious and fatal functional disturbances. Death, to use the words of M. Lallemand, may be the result of a series of illness, dating their origin from an attack of gonorrhœa; the importance of curing without delay this affection here, of course, impresses itself upon you.

From this digression, I return to the subject of inflammation of the membranes of the brain. The case of the man Brown, which has been under your notice for some time past, at the hospital, will serve as a fair illustration of the subject. We



have no example in the hospital of acute meningitis, but the case of Brown, which is of the sub-acute form, being more slow in its progress, and better marked in its character, will very properly serve as introductory to the study of the acute type of the disease. This man was taken ill with cephalalgia, in the region of the forehead and frontal sinuses. We inferred, as we had a right to, that it was not a case of secondary meningitis, from the absence of any previous ill health. Soon after the commencement of the headach, the senses became implicated; the sight of the left eye was impaired, and the hearing was disturbed with tinnitus, buzzing, resembling the noise produced by a saw, and, as the affection declined, it was like the humming of bees. These comparisons are the patient's own expressions, and were not elicited by any leading question; they are, therefore, the more descriptive of the symptoms. With the advancement of the disease, there were dulness, sadness, and somnolency, but no delirium. There was contraction about the eyebrows and the root of the nose, forming, as I mentioned when noticing this symptom in the lecture on tubercular meningitis, one of the best marked signs of meningeal inflammation. This contraction was, in this case, of a permanent character, and would have enabled any one, at all accustomed to the affection, at once to recognise it. There was no paralysis; no subsultus. The inflammation was confined to the anterior and inferior parts of the brain, not extending to the summit, as the faculties of the intelligence were but little impaired, nor was there much lesion of the cerebral substance, for there was neither paralysis nor rigidity.

After establishing the symptoms, the question starts itself, with what affections might this case be confounded? With very few. First, it could not be acute meningitis. The tongue was natural, and, although, there was some constipation, there was no nausea or vomiting; there was no cough; nor was there any unnatural excitement of the pulse. The inflammation was then limited to a small spot of the brain, for, had it been more extended, the pulse must have shown it, by becoming unduly excited. The same absence of paralysis which showed that there could be but little cerebral lesion, would indicate that the disease did not depend upon large tubercles, or other chronic tumours of the membranes, for these lesions speedily produce palsy. By way of exclusion, therefore, we succeeded in localizing the affection, and we recognised meningitis attacking the anterior portion and base of the brain. In addition to its anti-febrile character, its course, which lasted a month, a much longer duration than belongs to the acute form of the affection, and its gradual decline, satisfactorily demonstrated its sub-acute progress.

The prognosis was an important point, which came up for discussion, at the period of the man's entrance into the hospital. It was at first doubtful; was the meningitis secondary, and dependent on the presence of a tumour of tubercles, or the like? After the lapse of two or three days, it was clear that there was no chronic disease, but that the affection was a mere local phrenitis or meningitis. We made our minds up to this conclusion, from the evident absence of all symptoms of an

impaired constitution. The man had not been ill before the time of his recent attack, he had never called for the aid of a physician, nor had his friends; I say his friends, because in chronic cerebral affections the patient himself is often afraid to call attention to his symptoms, and the first application for medical relief is on the part of his friends, as the evidence of some decided mental aberration is forced upon them.

The treatment proper in acute meningitis, is sufficiently well exemplified by that pursued in this case. There are certain great laws well laid down for the management of this affection, which are much more clearly understood, than the subject of therapeutics in general, owing, I think, to the fact, that close observation is more easy in meningitis from its rapid and well defined symptoms, than in diseases of the thorax or abdomen. The following are the points to be attended to in treating acute meningitis.

Blood-letting, in patients who give evidence of tolerable strength, embonpoint, and previous good health, is always advisable, particularly so in the acute form of the disease, when depletion becomes a measure of absolute necessity, and if it be neglected your chance of saving your patient is but small. Should your bleeding be large or small? It is best, I think, to take a considerable quantity of blood at once from the patient, if he be a stout and healthy man; you may thus, sometimes, immediately arrest the disease. When serving in the Pennsylvania Hospital, I had a case illustrative of the good effects of this practice, and of the great importance of a correct diagnosis in cerebral affections. A man was brought into the cells, said to be labouring under mania a potu: he was a sailor who had just made a voyage from Boston; he had been drinking to excess, but had also been working hard exposed to a very hot sun. Upon examination, I found the signs he exhibited to be not those of ordinary mania a potu; his head was hot, his pulse quick, in short, he was in the first stage of acute inflammation of the brain. I bled him largely, between twenty and thirty ounces, and he was, I may say, instantly cured. I, indeed, the next day directed a slight cupping, a purge and the like, but they were merely by way of precaution. Had this patient been treated by opiates as a case of mania a potu, he must almost infallibly have died. Such cases I have seen treated in this manner in hospitals, for so common a vice is drunkenness in this country, that all diseases of the brain occurring in intemperate persons, are apt to be indiscriminately treated as the effects of excessive indulgence in ardent spirits. When I was a resident physician in the Alms House Hospital, a woman was brought in with a fracture of the skull, upon which arachnitis supervened. She was treated as a case of mania a potu, by a gentleman who was writing a thesis on this subject, whose mind was consequently absorbed by this single variety of cerebral affection. She died, and upon examination after death, spicula of bone were found driven in upon the dura mater!

After you have bled once largely, it is best to limit a repetition of general bleeding to cases of individuals of a very plethoric habit. In place of general depletion, keep up cupping and leeching,



which, if persisted in with pertinacity, will do much good. In cupping, every thing depends upon the manner in which it is applied. In the case of Brown, all the cuppings were of service except one, when the cups were applied to the temples; here it seemed only to augment the irritation—the pressure of the cups very near the seat of disease causing an afflux of blood to the part. The cuppings, which were addressed to the back of the neck, all did good. I do not speak of cups to the forehead, because no body thinks of using them in that quarter. My advice, then is to cup rarely to the temples, and generally to the back of the neck; leeches behind the ears may be employed with much advantage; in this very case, I found leeching behind the ears of service, when the cupping ceased to do good, showing the mere change in the manner of abstracting blood to be of essential importance. Leeching, then, is to be sometimes resorted to, though cups are generally to be preferred in taking blood locally, from the ease with which the quantity may be regulated, and the facility with which they may be obtained.

In very acute meningitis, you have within your control another powerful remedy, and one that is quite as important as any of the others—ice to the head. It is to be applied with caution and you are to judge of its producing its effect by the supervention of faintness, languor, or paleness of the face. In hospitals, the ice may be applied in a tranquilizing chair, but in private practice, where you have no such convenience, a bandage may be employed for this purpose; you must be careful to remove the application as soon as the ice melts, otherwise the alternation of heat and cold thus produced, may do harm. The use of ice I would continue for several days, until there was a decided abatement of the acute symptoms. It is a great point in the management of this remedy, to have for the patient proper attendance of persons who can control him. For this purpose one, two, or three men nurses will be indispensable in private practice, where those means of restraint are wanting, which are to be met with in lunatic hospitals.

The next remedy I shall mention, acts on the same principle as the last, and is intended to produce revulsion from the head; it is the application of warmth and stimulating poultices to the extremities. I was treating a patient some time ago with ice to the head, in whom, although, the ice was evidently doing good, as it produced pallor and languor, the symptoms, abated but little; upon examination, finding the feet cold, I directed warm stockings to be put on them, had sinapisms applied, and ordered them to be occasionally plunged into warm water, which was followed by an evident amelioration of the symptoms. Unless you attend to these precautions, you will lose much of the good that may be derived from the application of cold to the head. Upon trifles like this, success in a great measure depends, in the management of this affection; indeed in therapeutics the advantage which one practitioner has over another, depends chiefly upon his attention to minute and seemingly unimportant details.

Although it may be somewhat irrelevant, I cannot here forget to caution you against falling into those habits of careless and hasty prescribing,

which are sometimes produced by a negligent attention to the practice of public institutions. The advantages of hospitals are inestimable to one who uses them in a right spirit; that is, as schools of diagnosis, and of the great therapeutic indications. But you must remember that in private practice you must carefully direct or even superintend in person, a multitude of details, which are usually attended to in hospitals by well-trained nurses, aided by the system which exists in all well conducted institutions.

Much of the reputation of Dr. Physick as a practical physician, depended on a strict attention to these minute points of detail, and he had, therefore, often better success in the management of even medical cases, than persons who were perhaps more familiar with pathology, but not equally attentive to these particulars.

Purging is a remedy which has been almost from time immemorial adopted in the treatment of acute inflammations of the brain. The saline purgatives combined with senna, or a mercurial purge, are those generally employed. I prefer a mercurial purge, as it serves a double object, by acting on the liver, and preparing the way for ptyalism, if it should afterwards become necessary; it is besides a good preparation for the saline articles. I would begin by ten grains of calomel, followed up the next day by a dose of salts and senna; should the calomel not purge, it will salivate, which is not to be dreaded. After, then, a single mercurial purge, you may give doses of senna and salts,—a robust patient will require half an ounce of each; these, by inducing serous discharges from the bowels, will have a derivative effect. Afterwards your object should not be to produce violent purging, but to keep up a moderate looseness of the bowels.

Should the delirium not yield to depletion and purging, these remedies should not be continued after the strength of the patient begins to decline, but you must now have recourse to mercury, in small doses, and to blisters. Mercurials, like tartarized antimony, act as antagonists to inflammation, and may with propriety be employed in the second stage, or in the sub-acute form of the affection. They would have been highly appropriate in the case of Brown, in whom we should have prescribed them, had the disease not yielded in the first instance to the local depletory treatment. It is best to continue the use of mercury until ptyalism is produced. By effecting this, I have succeeded in curing a large proportion of the cases which have occurred in my wards of the hospital. An interesting case happened last summer, which, perhaps, some of you may recollect. It was that of a young man, who had been a clerk at Mobile, and who on his way to Philadelphia, by the Mississippi river, had been taken ill with fever and delirium at Cincinnati, from which he recovered with difficulty. He came to Philadelphia, not quite well, having still some symptoms of cerebral disease. He was taken ill again, and brought to the hospital. He was then in a state of high cerebral excitement, being occasionally rational and relapsing again into delirium; throughout the night he would be in a state of great liveliness, loquacious, restless, with his senses considerably exalt-



ed. From the history of the case, I concluded it to be one originally of acute meningitis, which had now become chronic, and began the treatment of it with blisters and local depletion, but the delirium did not yield, until the effects of a mild mercurial course were produced. Another case I may mention was that of a young sailor, who was taken ill under circumstances which I do not now recollect. He had pleurisy first, and afterwards meningitis, and the disease did not abate till after a mercurial course. The symptoms were not the violent delirium of the last mentioned patient, but mere stupor, dulness of the senses, and constant disposition to throw his head strongly backwards. Neither of these cases was dependent on the presence of tubercles or other chronic lesion.

We come next to speak of blisters, which, it might seem at first sight, would be proper at an early period of the affection. This is not the case, however; in the first stage, they seem only to irritate, and decidedly augment the extreme agitation and violent delirium; they should be delayed till the acute symptoms subside, when they may be applied over the occipital region, extending to the back of the neck. They are to be rarely applied over the whole scalp, where they give great pain. The same law that regulates the employment of leeching or cupping is applicable here; the blisters do more good, at some distance from, than immediately over the inflamed portion of the brain; when the disease is more chronic, it is often useful to keep a blister discharging behind each ear, as I have already advised in the treatment of acute hydrocephalus.

Caustic issues or incisions over the fontanelles have been recommended in chronic meningitis, but as they would be very inconvenient, they have not been generally used, though I see no reason why they should not be employed in certain cases, especially where there is reason to apprehend that the disease has followed an injury of the head.

The plan of treatment which I have gone over, will succeed in curing the majority of cases of acute meningitis. If, however, the affection should not yield, and passes into the chronic state, the patient remains necessarily more or less insane, and is apt to sink into the third stage of insanity, or dementia. He becomes utterly incoherent, and the case usually terminates in a very curious but totally incurable variety of paralysis, called the paralysis of the insane.

In the beginning of this kind of insanity, when the appearances of active inflammation have in a great degree subsided, cold affusions upon the head, repeated several times daily, mild laxatives, a sparing diet, abstinence from all excitement or exposure to the sun, with gentle exercise, prove the most useful remedies. In short, the treatment must be extremely mild, but persevere while a hope remains of saving your patient from the worst species of insanity.

When acute meningitis is fatal, the patient generally dies at the end of the second, or in the third stage of the disease, or he may die from meningeal apoplexy. I have twice or thrice seen a patient in the Alms House, labouring under meningitis, become suddenly comatose, with stertorous breathing and loss of power of the limbs. The symp-

toms were those of apoplexy, arising from effusion of blood, not into the substance of the brain, but, on the surface of both hemispheres into the membranes, and which from its pressure is, therefore, necessarily fatal.

Whether the inflammation of the membranes of the brain be acute or not, as the third stage, or that of effusion of lymph or pus supervenes, the delirium becomes less violent, the disturbance of the senses is succeeded by a total abolition of them, the patient neither seeing nor feeling. There is a gradual supervention of paralysis; sudden dilatation of the pupils in place of alternate contractions; and there is usually, but not always, strabismus. This stage is necessarily fatal, there being no possibility of a recovery.

To recapitulate briefly the course of my remarks to-day—you have had your attention called to the anatomical characters of certain serous inflammations, and after tracing the connection between cerebral affections and those of the genito-urinary organs, we have entered at length into the treatment of acute meningitis, basing my remarks upon a case of the sub-acute variety which has been lately under notice at the hospital. I have not gone into details of the symptoms of acute meningitis, waiting till they present themselves to our notice, which from our knowledge of the law attending the appearance of these affections, must be the case during the course of the summer. The sub-acute variety is the only one which I am now able to demonstrate, although my therapeutic observations chiefly relate to more acute forms.

#### CHRONIC MENINGITIS—APOPLEXY, &c.

*Tuesday, May 23d.* At my last lecture, I continued the subject of inflammations of the brain, and entered particularly into that of acute meningitis, which I was able to illustrate by a case of the sub-acute form of the affection, at that time under your notice at the hospital. I merely alluded at the time to the subject of chronic meningitis, without entering into it at any length, and I, therefore, propose now, to say a few words upon it, as it properly belongs to this period of my course. We have a large number of cases of this affection in the wards of the hospital. I shall select the best marked of them, that of Urweiler, a German, to whose history and symptoms I shall briefly call your attention. This man, two or three years ago, having previously enjoyed good health, received a blow on the head, the effects of which, at the time, were not very seriously felt. He suffered slight headach, pain, &c., which, however, soon abated. But, after a lapse of time, the powers of his mind began to fail, and he became, finally, entirely deranged, and in addition to this disorder of the intellect, paralysis is gradually supervening. This latter symptom, as you may have observed in the hospital, is a very common accompaniment of insanity, chiefly of dementia; it is, however, often met with in persons in whom the insanity is not yet developed, the functions of motility being attacked before the intellect is much impaired. The disease is, therefore, often to be recognised at first by the mere disorder in the powers of movement, and may ordinarily be de-



tected as follows. Slight symptoms of insanity are presented, often not well marked, but, again, rapidly becoming strongly characterized, and running into the worst degree of madness, incoherence. The organs of locomotion become also affected, the first symptoms being a failure in the power of walking, and feebleness of the upper extremities rarely at first occurring; a hobble or limp is noticed, generally, at first, on one side of the body only. Other changes then take place, the upper extremities becoming involved, the face slightly distorted, the tongue is protruded with difficulty, and the speech thick; these symptoms, however, are often indistinct, with the exception of the failure in the power of walking, which always shows itself. The symptoms, for the most part, gradually but slowly advance, scarcely ever retrograding. If the patient is insane when this partial paralysis appears, the affection is nearly always fatal. Dr. Calmeil, who was connected with the lunatic hospital, at Charenton, near Paris, considered it always fatal; and my own prognosis is always more or less of the same character. It is somewhat singular that this disease is much more frequent in men than women; although very common at the Bicêtre and Charenton, it is quite rare at the Salpêtrière where none but women are admitted.

I shall not now enter at length into the pathological features of the affection, merely bringing before you two cases, that came under my notice some time ago. One was of a gentleman, who died about two years since; he had been hurt by a fall, from the consequences of which he seemed to have recovered; but, two or three years subsequently, his walking began to fail, soon afterwards his mind, and a short time only passed after the development of these symptoms, before he died. On examination after death, we found the membranes of the brain universally thickened. The other case was that of a man, who had been a master of a vessel in the merchant service; just previous to his attack, he had been suffering from a soreness of throat, which improved but little under a treatment consisting chiefly in local applications; symptoms of disease of the brain soon appeared, and the man entered the Pennsylvania Hospital. At this time, he had incomplete paralysis of the lower extremities, and of the left arm, with painful deglutition; these symptoms went on slowly, but, finally, destroying the patient. After death, we detected a slight thickening of the membranes lining the ventricles, and were astonished to find how little the medullary substance of the brain was affected, and that the cortical substance was merely in the normal state.

Treatment in chronic meningitis is available only when the functions of motility are not impaired, and those of the intellect alone are affected. The mode of treatment to be resorted to, consists in a regulated diet, blisters to the nape of the neck and behind the ears, and cold affusions twice or thrice a day. Although I cannot affirm that I have cured any patients labouring under actual paralysis, I have, certainly, by the plan detailed to you, restored several in whom the disease had proceeded no further than the affection of the mind. The patient Urweiler is much better, speaks with greater

ease, and has obviously more strength in the limbs.

The next disease of the brain, which I shall notice, offers, at this time, several cases in the wards of the hospital, and will be often encountered by you, in the course of your practice—I mean *apoplexy*. Of the cases in the hospital, one is a recent one, and two, in the black wards, occurred as far back as a year ago. The term, apoplexy, is often used very indefinitely. I shall here employ it to signify an actual hæmorrhage into the substance or beneath the membranes of the brain, excluding mere effusions of serum, all cases where there is no organic lesion of the brain, as well as those in which mere congestion occurs, an affection which is most frequent during the summer season, and at the close of the winter. These cases are all confounded with true apoplexy, and indiscriminately classed under the same name; sometimes, indeed, when no one function of the brain is disordered, the term apoplexy is given to sudden deaths. A man will fall down dead, perhaps, with some comatose symptoms from disease of the heart, and his death is at once referred to apoplexy; whereas, genuine apoplexy almost never causes instantaneous death. When the case terminates fatally, it is usually after a lapse of some months, from paralysis. It sometimes proves fatal in the course of a few minutes, or half an hour; but in these cases there is usually blood effused into the ventricles, and it is not common for it to terminate before the end of several hours, even when most severe. The exceptions to the rule, that sudden death does not follow apoplexy, are indeed so rare, that you may pretty safely pronounce an instantaneous death to be independent of this cause. These very sudden deaths are usually owing to diseases of the heart, although, in some of them no organic lesion whatever can be found of any organ.\* There was an example of this a few months since at the hospital, in a patient who was labouring under a chronic disease of the heart, who died during my visit. I found him in his ordinary condition, and had just left the ward, when I was suddenly called back and found him dead.

The anatomical characters of apoplexy are easily ascertained, and may be divided into two great varieties—in the first and most common, the effusion of blood takes place into the substance of the brain, in the other it takes place into the membranes. Any spot in the brain may be the seat of the hæmorrhage, but it is generally the thalamus of the optic nerves and corpus striatum. The blood is sometimes poured out in such quantity as to break into the ventricles, and even force asunder the septum between them, so that it presses upon both hemispheres of the brain; but it is generally confined to a single spot, on one hemisphere.

The character of the clot is always the same; it consists of a mass of dark coagulated blood, surrounded by the tissue of the brain, which is, to a certain extent, ecchymosed and softened: this softening may be either the effects of previous disease, or the consequence of the apoplexy. Dr. Rochoux, who observed at the Bicêtre hospital, thinks that

\* Memoir of Dr. Louis.



apoplexy always depends upon the previous existence of local softening in the brain, the hæmorrhage afterwards taking place in the diseased portion. My own, and the general opinion is, that in the large majority of cases, softening of the brain around the clot is a consequence of the pressure from the blood thrown out, the hæmorrhage itself, depending upon a disorder of the circulation. The cause of the deranged circulation is sometimes hypertrophy of the heart, which increases the impetus of the blood; at other times, the cause is to be sought for in a diseased state of the arteries and capillary vessels. But although this opinion of Dr. Rochoux is too exclusive, it is by no means unfounded, for there is a certain if not a large proportion of cases, in which the evidence is decidedly in favor of previous lesion of the cerebral substance. These cases are somewhat analogous to the hæmorrhage which follows diseased uterus, or the advanced stages of pulmonary tubercles.

After the clot has been some time in contact with the substance of the brain, it is in a measure isolated by the formation of a cyst which completely surrounds it. It is afterwards gradually absorbed, absorption taking place in the following order: first, the serum disappears; secondly, the colouring matter; and, thirdly, the fibrine of the blood. After a lapse of some months, the cyst only remains, in one of two conditions:—it is either entirely hollow, and lined with a new serous coat, or a little cellular substance occupies the old seat of the apoplexy. In one of these two forms, the parts are invariably found.

This succession of lesions has been perfectly well illustrated, by the cases which have been just now under our notice, for there are particular symptoms, corresponding to each stage of the disorder. One was that of the old woman, in ward No. IV., in whom there was a complication also of softening of the brain. For, in addition to the paralysis which follows hæmorrhage, we have strong contraction of the flexor muscles on the paralyzed side, so violent, that pain is given to the patient by an attempt to extend them. She had been well, we learned, two weeks before the attack, which determines it at once to have been of an acute character. The next point would be the manner in which it occurred,—was it sudden or gradual? This we cannot settle satisfactorily, from our inability to ascertain the previous history of the case.

The paralysis might arise either from acute softening or apoplexy, and as the distinctive characters of these two affections chiefly depend upon the abrupt commencement of the latter, and the more gradual progress of the former, it is evident that we cannot make a positive diagnosis. The rigidity which is so striking in the paralyzed side of the body, is produced by softening, but this softening may be merely secondary to the hæmorrhage. It does not take place in the beginning of apoplexy, until the parts around the clot become inflamed, whereas, in inflammation of the brain, the numbness, stiffness, and rigidity follow in rapid succession, from the onset of the affection, and precede perfect paralysis. There is another reason for regarding the case as apoplexy; that is, the extent of the paralysis, which is rarely

so great in inflammation. In acute and sub-acute meningitis, as I have before remarked, attacking the summit of the brain, you have delirium of a more or less violent character, the mind being always compromised; if it involves the base of the brain, you have alteration of the functions of motion, as subsultus, spasms, &c., and the sight is affected, but, as there is no paralysis at first, you cannot confound these diseases with apoplexy.

Another point of some importance, in making a diagnosis of apoplexy, is to distinguish it, during the first few hours of the affection, from mere congestion of the brain. This is not so easy at first, as after the lapse of a few hours; but there are some peculiarities about these affections, which, if closely attended to, will serve to draw the line of distinction. In the first place, after the first few minutes of the loss of consciousness, which usually occurs at the beginning of both, there is paralysis of one side alone, in apoplexy. In congestion, on the other hand, there is scarcely ever complete paralysis of either, but there is generally some difficulty of motion in both. Persons attacked with apoplexy, are not so commonly of the same full habit of body, as those who suffer from active congestion, so that this plethora is alone sufficient to induce you to suspect the case congestion. A nice diagnosis, at the beginning of the two affections, is not very important; it is only after they have advanced beyond the first stage, that it becomes of consequence, as regards the treatment, to distinguish between the two. For every case, offering the symptoms of loss of consciousness, difficult breathing, turgescence of the vessels of the face, &c., but one course of treatment is to be thought of, the actively depletory. But after the subsidence of these immediate symptoms, cases which thus far offered the same character, demand a widely different plan of treatment.

I have alluded to cases of effusion of serum on the brain, which are sometimes confounded with apoplexy from hæmorrhage, and are termed serous apoplexy—a term often used to denote the presence of comatose symptoms, without hæmorrhage. This serous apoplexy may occur from the effusion of serum beneath the membranes, or into the ventricles of the brain; in the latter case, it is not infrequent in mania a potu, and also in some diseases of a chronic character. These cases, however, of comatose symptoms from serous effusion are of rare occurrence, except at the close of cerebral diseases of easy diagnosis.

Sudden coma, entirely independent of organic disease of the brain, sometimes appears, as the consequence of a previous chronic disease of various viscera, or even of mere anemia, under circumstances calculated not a little to puzzle the practitioner. A case of this sort occurred the winter before last, in my wards of the hospital. A seaman, who had been exposed to great hardships, and had contracted a disease of the liver in the East Indies, of which he bore well-marked evidence in a pale, yellow, jaundiced skin, came into the ward complaining of neuralgic pains in the feet, unattended with fever. He had no symptoms whatever of disorder of the brain, or of the thorax; nor of the abdomen, except those indicative of a diseased liver. After remaining for a short time in the hospital, he was one



night found with comatose symptoms, stertorous breathing, &c., having been seen, only an hour before, walking across the ward for a cup of water. I saw him only an hour before his death, in a state in which it was exceedingly difficult to arrive at a correct diagnosis; I, however, came to the conclusion that it was not apoplexy, from the fact of the symptoms not being limited to one side of the body. An examination after death revealed no alteration whatever of the brain, except a very trivial quantity of serum beneath the arachnoid. He had, therefore, coma, loss of consciousness, and stertorous breathing, during life, without any lesion of the brain.

Symptoms of the same character occur from the effects of heat upon the nervous system, during the warm season. During the intensely hot weather of the summer of 1830, I witnessed the opening of the bodies of twenty or thirty persons, who died from this cause; we found no organic disease of the brain, but merely a slight congestion, such as is observed in other acute diseases, which it would be idle to set down as a cause of death. These were the appearances only in those who died suddenly of exposure to heat; for if time elapses for reaction to come on, inflammation of the brain may take place, but only as a secondary affection.

The other two cases of apoplexy, occurring in the hospital, to which I shall direct your notice, offer varieties of the disease, different from the first described. They were black men who came into the wards, in a state of complete paralysis of one side of the body, one of them scarcely able to speak. He could articulate but the monosyllable, *no*, which he answered to all questions whatever that were put to him. He seemed conscious of the ridiculous nature of this invariable answer, but could not increase his vocabulary for several months, when he was gradually able to pronounce the shorter words, and now speaks very well, although there is still paralysis of one side of the body. In the other, the speech was merely thick, but his mind remained tolerably clear. They continued in this state for several weeks, and as the process of the absorption of the clot advanced, the intelligence brightened, but the paralysis remained. Our cases were hemiplegia, one side of the body being affected; that, opposite to the side of the brain, in which the hæmorrhage occurred. This latter conclusion we make from a law of pathology to that effect, which is almost without an exception, in its operation. There may be one, two, or three abnormal cases out of a thousand, but, in making your conclusion, you may safely leave them out of the estimate.

As the next consideration, in our diagnosis, we had not only paralysis of the lower portion of the body, but also of the upper extremity, and the muscles of the face, with disturbance of the intellect and senses, establishing, of course, the seat of disease to be the brain. The stiffness of the limbs was gradual in its progress, caused by inflammation around the clot; but the paralysis was, at the time of the patient's entrance, perfect; and the mouth was drawn towards the side which was *not* paralyzed, which is the reverse of what occurs in cerebral inflammation where the paralysis is active, that is, the mouth is drawn towards the palsied side. Our

diagnosis and prognosis were at once made out; there was a hæmorrhage on one side of the brain, and it was incurable, because the paralysis was complete, in which cases it is for life, the only chance of recovery being when it is incomplete.

The liability of apoplexy to return is a matter of notoriety, and a point perfectly well understood in the world; you should, therefore, in all cases where it has once occurred, be on the watch, looking for a recurrence of the hæmorrhage, which nearly always takes place near the same spot, between the thalamus and corpus striatum.

The cases under notice were not fair specimens for testing the treatment proper for apoplexy; but some of you may recollect a case, which occurred last summer, of incomplete paralysis in a woman, which yielded entirely to treatment in a week. Dr. Forille of Rouen, explains the different success of the treatment in cases of paralysis from hæmorrhage by the occurrence in some cases of an actual rupture of the fibres of the brain, while in others these fibres are merely separated by the effused blood without being actually torn. I am myself inclined to this opinion, and believe that the medullary fibres are actually broken in most cases of complete hemiplegia. The routine of treatment in apoplexy is simple and familiar to all medical men. Very free bleeding is of course indispensable, in all patients, who are at all plethoric; if of a very pale complexion, it is to be practised with some care. Purging, foot-baths, and cupping are to be resorted to, although the latter is not of the same value here as in meningitis, where it is our sheet-anchor. I here indicate merely the general outline of treatment, to be pursued in apoplexy, not entering into any details on the subject. In regard to depletion, I may remark that it is a point of some delicacy to determine how far to carry it. My rule is, to continue depleting until the circulation in the vessels of the head is lessened, which is to be ascertained as well from the appearance of the eye and countenance as from the pulse. Purging I also push to some extent; but you must be careful not to purge too violently, or that state of chronic softening of the mucous membrane of the intestinal canal, which was mentioned in a previous lecture as a frequent accompaniment of the exanthemata, may occur; it is a most unpleasant complication in paralytics, who rarely resist a diarrhœa long, however much they may have been previously benefited by purges. Blisters, setons, and issues have all been used in apoplexy, but with indifferent success, although the keeping up of a discharge, by these means, is excessively useful in chronic meningitis. If, however, the apoplectic symptoms are pertinacious, these remedies may be tried once or twice, and continued according to the effect produced.

If you are called to a patient, suffering from apoplexy, after the full mischief of the hæmorrhage is produced, and *perfect* paralysis is established, it is your duty to announce at once to the friends of the patient the impossibility of his ultimate recovery, explaining to them the nature and amount of organic lesions existing in the brain, and the impossibility of an entire cure.

The last point in the treatment of apoplexy to which your attention must be directed, are the



sores which are likely to occur about the sacrum, trochanters, &c., if the patient is obliged to keep his bed for any length of time. The bladder is also apt to become diseased, in this affection, and you must watch and guard against too long a retention of the urine.

I shall conclude this lecture, by saying a very few words on the subject of acute softening of the brain. This affection is to be known from apoplexy, by the presence of fever, dizziness, and vertigo, while you will rarely observe any febrile movement, in the cerebral hæmorrhage, till some time after the effusion of blood has taken place. The numbness of the limbs, which is present in softening of the brain, comes on very gradually, and, although the intellect is feeble from the first, yet the impairment of its faculties is comparatively slow in its advance, there being at first, and for some time, merely dulness, and no active delirium afterwards. In a black man, under my care, four years ago, at the Pennsylvania Hospital, the delirium assumed the character of well-marked mania. This maniacal delirium is different from the more active kind occurring during the inflammation of the membranes and cortical substance of the brain. It is an affection which rarely occurs, except in the young and middle-aged, and is not to be classed with chronic softening of the brain, which is a sort of necrosis, or gangrene of this organ, and met with only in old persons. In this latter disease, there is no active febrile movement whatever, the patient advancing, with unfailing certainty, from bad to worse, to death. The affection is dependent, according to Dr. Carswell, on a cartilaginous condition of the blood vessels. Dr. Rostan, of the Salpêtrière Hospital, observed the disease on a large scale, and has published a monograph upon the subject, in which he states it to be beyond the reach of treatment. In this country, I regret to say, that our experience does not materially differ from that of Dr. Rostan.

I here conclude my remarks on the organic diseases of the brain. There still remain numerous functional disorders of this organ, to which we may perhaps allude on a future occasion.

## CLINICAL REPORTS.

### PENNSYLVANIA HOSPITAL.

[Reported by HENRY H. SMITH, M. D., resident Surgeon.]

*Case of Amputation of the Arm, for a gun-shot wound near the elbow—Ligatures removed in eight days.*

Samuel N—, aged 16 years, whilst out on the 28th of March, with a companion, who was intoxicated, was shot in the arm by a marble, which had been placed in the gun instead of a bullet. The limb was dressed with an angular splint tightly bandaged, and the ball left in the wound. On the 29th, nearly twenty-four hours after the accident, he was brought to the Hospital. The arm was much swelled, inflamed, and painful; the ball had entered at the external condyle, and perforated the humerus at the thin part, above its articulating surface, and travelled to the back of the arm. The ball was extracted, a warm poultice placed around the joint, and the arm loosely bandaged in a carved

angular splint. Ordered pulv. Dover. gr. x. at night, and f $\frac{3}{4}$ ss of mist. neut. every two hours.

March 30th. Slept tolerably; pulse quick; arm easier, and less inflamed; tongue dry and furred. Ordered salts and magnesia, low diet, and V. S. ad  $\frac{3}{4}$ x.

March 31st. Pulse one hundred in the minute; skin more moist; tongue less furred; less inflammation in arm; wound suppurating. Ordered calomel gr. iij. ipecac. gr. ss. every two hours.

April 6th. Arm has been suppurating kindly; inflammation much reduced; tongue clear and moist; pulse good. Simple cerate to wound.

April 8th. Attacked with erysipelas, which prevails generally in the ward; much swelling and inflammation around the wound. Ordered warm poultice to wound; arm left loose in splint; lead-water cloths to rest of arm, and free purgation.

April 9th. Wound sloughing; joint much inflamed, and swollen; tongue furred; considerable fever. Ordered same dressings, and blue mass gr. j., every two hours.

April 10th. Wound enlarged; free discharge of sanious matter; inflammation travelling upwards. Ordered poultice around the joint, sprinkled with pulv. canthar.; arm kept in splint; saline draught, and vegetable diet.

April 11th. Blister drew well; sloughing checked; wound three inches in diameter around the joint; discharging freely. Ordered simple poultice, with increased diet.

April 13th. Slough coming away; wound granulating. Continue treatment.

April 16th. Again attacked with erysipelas, for which the usual treatment was directed. This again produced sloughing, which removed the integuments around the joint, leaving an extensive ulcer. On the 23d he was attacked with diarrhoea and night sweats, and on the 25th of April, the inflammation having subsided, the arm was amputated by Dr. RANDOLPH.

May 2d. The patient is improving in general health; wound looks healing, and is uniting as usual.

### *Case of Dislocation of the Radius backwards.*

Mr. John B. W—, clerk, aged 23 years, whilst riding in the city, on the afternoon of the 12th of May, accidentally fell from his horse and dislocated the left radius backwards. He stated "that he fell on his left hand whilst it was turned inwards, and immediately felt a sharp pain in the elbow, which induced him to think he had broken his arm." He came at once to the Hospital; the arm was semiflexed; he was unable to supinate the hand, or to bend the elbow or straighten it, without intense pain. The head of the radius was distinctly felt behind the external condyle of the humerus, resting against the olecranon process. On partially pronating and supinating the hand, the head revolved distinctly, and owing to the little swelling, and the slight development of his muscles, the button shape of the radius was distinctly seen revolving against the olecranon. The patient, to use his own expression, had always been very "loose-jointed," but had never before dislocated any of his bones. After a close examination of the case, he was placed on a bed; an assistant was



directed to seize the humerus near the condyles, place his thumbs against the head of the bone, and force it downwards and forwards. At the same time, I made extension at the wrist, suddenly straightened the arm, and supinated the hand, when the bone readily slipped into its place. The arm was then placed in a carved angular splint, loosely bandaged, and cold lotions applied to it. The next day, the patient could bend the arm and perform the usual motions of the hand, but, of course, was not allowed to do so. Little inflammation followed, and on the 14th of May, still wearing the splint, he returned to Mullaga Hill, N. J., where he resided.

This accident is one of very great rarity. Boyer says that he has seen but two cases; Duverney, three; and Sir Astley Cooper never met with it in the living, and but once in the dead subject. The closeness of the articulation, the strength of the muscles surrounding the joint, and dense fascia covering them, all tend to make it of rare occurrence. The light nature of the connection of the lower end of the bone to the bones of the wrist, by allowing it to glide over them, gives rise to frequent dislocations at this point and to fractures, by this means preventing the application of a direct force to the upper extremity of the radius, so that although we have in the course of a year, numerous dislocations of the lower extremity, yet this is the only one known for many years, of the upper portion of it. The state of the joint after the occurrence of the accident is minutely described by Boyer. Sir Astley Cooper, in the account of the case dissected at St. Thomas' Hospital, also furnishes an account of the state of the parts where the dislocation had been long unreduced. His directions for the reduction of the bone, would not, however, have availed in this case, for the arm might have been flexed to the utmost, without throwing the radius off the end of the humerus; but where the power is applied as recommended by Boyer, the reduction is immediate, as the force at the head of the radius throws it off the condyles of the humerus, whilst the extension of the arm, and the supination of the hand, must place the bone in its original position.

*List of Accidents, admitted into the Pennsylvania Hospital, from May 16th to May 30th, 1838.*

One case of fracture of the ribs, from a fall; dressed with a tight bandage. One case of rupture of external lateral ligament of the knee joint, caused by the sudden pressure of a bank of earth against a platform, by means of which the *leg* was forced inwards; the knee was leeches, the limb placed at rest in a fracture box, and cold applied constantly to it—doing well. One case of burn of the face and upper part of the chest, caused by blasting rocks; eyes slightly hurt; face kept moist by cloths wrung out of mucilage; collyria to eyes, and cerate to the chest. One case of fracture of the tibia and fibula, two inches above the ankle; dressed with fracture box.

The case of incised wound of the ankle, reported in the last, is cured. The tendo-Achillis united firmly in twenty-five days, and the patient has now the perfect use of his foot. The case of incised wound of the abdomen is well, and the man walking about.

## DOMESTIC SUMMARY.

PROFESSOR DUNGLISON was elected one of the Physicians to the Philadelphia (Alms-House) Hospital, on the 21st of May, in the room of Dr. Stewardson, who resigned the situation upon being appointed to the Pennsylvania Hospital.

*Medical Convention.*—The April number of the Western Journal of the Medical and Physical Sciences calls particular attention to a series of resolutions, on the subject of medical education, passed by the Medical Convention of Ohio, during its session at Columbus, in January, 1838. One of these resolutions suggests to the various schools of the Union the expediency of sending delegates to a Convention, in some central city, that might devise correctives for many of the imperfections which now exist in their organization and administration. The Western Journal proposes Philadelphia as the proper place for such a meeting, the University of Pennsylvania to appoint the time and give the invitation.

*Medical College of Georgia.*—Some important changes have been lately made in the organization of this Institution. The number of professorships is limited to seven, and the length of the course of lectures reduced to that which is adopted in other medical schools, commencing on the second Monday of November, annually. An appropriate address was delivered to the graduates of the college, on the second of April, by the Rev. Elijah Sinclair, one of the board of trustees.

*Report of several cases of successful operation for club-foot by the division of the Tendo-Achillis, with remarks.* By W. DETMOLD, M. D., of New York.

DR. DETMOLD, in the May number of the American Journal of the Medical Sciences, reports three cases of club-feet in children in which the deformity was entirely removed by division of the tendo-Achillis, and subsequent extension. The operation was first performed by Lorens, of Frankford in 1784, afterwards by Michaelis, in 1796, and again by Delpech, in 1816, with what success is not accurately ascertained. The operation had sunk into oblivion, when it was revived in 1830, by Dr. Louis Stromeyer, and so materially modified as to bestow on him valid claims to originality.

It may be well before describing the *modus operandi* to take a survey of the condition of the parts implicated. That the deformity depends upon abnormal muscular action, is evident from the possibility of cure in early childhood. The defect, of course, does not depend upon the bones. The disproportion in size and strength between the extending and flexing muscles is no where greater than in the leg.

"The extensors of the foot having overcome the contraction of the flexors, the heel is drawn up, and the weight of the whole body, instead of resting on the whole sole, is supported by a small portion only of this part; namely, the inferior extremity of the metatarsal bones, the toes being naturally kept in a constant state of almost complete extension; thus that species of club-foot is formed which is called *pes equinus*. Or,



while the heel is drawn up, the point of the foot is at the same time drawn inwards, so that the weight of the body rests on the outer and upper part of the foot; this forms the highest degree of *vaius*, the real club-foot.

After this state of things has existed for some time, the flexors of the foot being entirely out of action, lose all their strength, the muscles of the calf being in a constant state of contraction, are drawn up, and become thinner, till at last the calf disappears entirely. The ligaments of the tarsus and metatarsus are stretched on one side and contracted on the other; that part of the foot which touches the ground being covered with a thick callus. If the point of the foot or of both feet is turned inwards, the patient, in order to get one foot round the other, is obliged to make a rotatory motion of the knee joint, which eventually affects and weakens the joint very much."

In infants, where the bones, ligaments and muscles are still in a plastic condition, suitable mechanical means may overcome the deformity. After a certain period, however, "any attempt to stretch the contracted muscles become so painful that the patient cannot bear it; besides, the extension soon begins to act as a stimulus upon the contracted muscles, and produce new and convulsive contractions, which frustrate every attempt at a cure, and increase the evil. This circumstance has suggested the idea of dividing the tendo-achillis, to counteract in this way the contractions of the gastrocnemii muscles. The operation, however, is here not the final aim; it merely produces a condition of parts favorable to the subsequent treatment; we allude to the cicatrix, which unites the extremities of the cut tendon; for the tendon is first divided, then the extremities are united again and healed, and after that the treatment of the disease begins."

It is a well established fact, that most of the tissues, when divided, heal by an intermediate substance, analogous to, but not identical with them. This intermediate substance in the cicatrix of tendons is peculiar, and possesses extensibility. Upon this fact the success of the operation is based.

Dr. Detmold now proceeds to lay down the following rules for performing the operation.

"The patient having been prepared for the operation, by being restrained from walking for a few days previously, and by daily bathing his feet, he is laid down flat on his face, an assistant presses the knee down upon the bed,—the surgeon with his left hand takes hold of the heel, and introduces a narrow, pointed, and curved bistoury, about one or two inches above the insertion of the tendo-achillis, between the bone and this tendon, the edge of the knife turned towards the latter, and pushes it through, so that the point comes out on the other side, without making the cutaneous wounds wider than the blade of the instrument. The surgeon then draws with his left hand the heel down as much as possible, and thus divides the tendon which separates with a jerk and a distinct noise. As soon as this is perceived, and not until then, the instrument is withdrawn in the same way in which it had been introduced. Precaution must be taken not to make the two cutaneous wounds larger than necessary, and not to get

the point of the knife between the fibres of the tendon, but to go clearly round it, so as to divide it in its whole thickness. The wounds, which generally bleed very little, are covered with common court-plaster.

The next object is to bring the divided extremities of the tendon together, and we think the bandage best calculated to fulfil this, is a modification of Desault's bandage for the rupture of the tendo-achillis, with a bent splint over the knee, avoiding at the same time all pressure on the wound, as this is apt to produce convulsive contractions of the gastrocnemii muscles. This bandage leaves the wound free, and allows the use of cold fomentations, to keep down inflammation. After forty-eight hours the external wounds are generally healed, and the cohesion of the tendon is so far advanced as to admit the application of the extending apparatus, which at first must be put on loose, and gradually tightened; from time to time it is taken off, and the foot washed with camphorated spirits of wine, to prevent excoriation. Generally in four or six weeks the foot becomes straight enough to admit of a common boot being worn, with a spring to it extending up to the knee, like the one on Scarpa's machine, to which we have added another spring, which aids the bending of the foot on the instep. Besides these springs, we fasten the foot with three straps inside the boot, in its proper position. After this boot has been worn for four or six weeks, the patient generally can wear a common boot without any further precaution.

The treatment above described requires modification in different cases. The operation, for instance, is not at all limited to the division of the tendo-achillis, sometimes the tendon of the tibialis posticus muscle has to be divided, sometimes the flexor longus pollicis, and different others, if they are so contracted, that a mere extending apparatus will not suffice.

We should add here that the operation has been successfully performed on a child of one year, and on a lady of fifty-three years of age; besides a great number of cases of all ages between those two periods."

Dr. Detmold reports three successful cases. The first patient was fifteen years of age, and the deformity with him was congenital. "The inner margin of the foot was nearly bent into a right angle, and when the boy stood with both his legs together, the toes of the club-foot were behind and above the inner ankle of the right sound foot." The operation was performed in the manner just detailed. Six weeks afterwards, the boy walked "on the flat sole of a straight foot." "We have now the cast of the foot before us, taken five months after the operation, and the foot is perfect without exhibiting any other anomaly, than a slight remnant of the thick callus on the outer and upper part of the foot."

His second and third cases were also congenital, and the deformity occurred in both feet. The one of fifteen, the other of fourteen years standing. Both exhibited in every respect the same degree of deformity. "Both feet are alike; there is not the slightest remnant of a calf on either side; the heel is drawn up as far as possible about four



inches above the part of the foot which touches the ground, the sole of the foot looking backwards and upwards, the tarsus has taken its place, and supports the weight of the body; consequently a callus has formed there, which is about an inch thick; a line passing over the sole, from the heel to the big toe, which in a well-shaped foot would be a straight line, describes here even more than a right angle; in consequence of which the big toe appears fully two inches longer than the little toe." The same plan of treatment was pursued, and with entire success in the first case, and the second was rapidly progressing to a favorable termination. The external wound in all these cases healed in about forty-eight hours.

Dr. Detmold, we believe, has the merit of being the first to perform, in this country, the operation of Stromeyer.

### FOREIGN SUMMARY.

*On the use of Chloride of Lime in Wounds attended with much pain, by Dr. Chopin.*—In wounds produced by contusion, laceration, or by the explosion of gunpowder, where there is much pain, speedy and certain relief, says Dr. C., is produced by chloride of lime. That this relief is not the effect of cold or any other cause than the chloride in solution, the author is convinced by many experiments. Charpie, moistened with the same solution, has been also found a useful application in relieving the pains which sometimes follow delivery, which depend on small excrescences in the vagina. That such is frequently the case, Dr. C. is convinced from repeated examination. Excoriated breasts are most efficiently treated by the use of the same external application.—*B. and F. Med. Rev. from Jahrbücher der in-und-ausländischen gesammten Medicin. Heft i. 1837.*

*Extirpation of the Uterus.*—MM. Capuron and Lisfranc lately read to the Academy their report on the following case. Professor Laserre was consulted by a middle-aged woman for an inversion and prolapsus of the womb, which had been induced by the violent traction employed by a midwife at her last accouchement, two years before. From that period, she had suffered repeatedly from alarming uterine hæmorrhage.

The tumour was of a pyriform shape, irregular and knobby on its surface, and the narrowest part or pedicle was girt with a hard ring (bourrelet) in the situation of the uterine orifice. Finding that it was quite impracticable to replace the uterus, M. Laserre determined to extirpate it, by means of a ligature passed round its pedicle, and tightened as firmly as the patient could bear. The acute pain induced by the ligature was calmed by opiates. 'Après quelque temps' a second ligature was applied more tightly; but this operation caused such severe suffering, that it was found necessary to remove the string. The attempt was subsequently made several times; but the same alarming symptoms always coming on, the surgeon was obliged to resort to another practice. Drawing the tumour out, as far as he could, and finding that part only of the pedicle had been destroyed by the ligature,

he passed another ligature tightly round it, and then removed the mass with one stroke of the knife. Peritonitis supervened; but a rigorous antiphlogistic practice speedily dissipated all the unpleasant symptoms. At the end of the fifth day 'l'état de la malade était satisfaisant.' On the following week, a painful swelling of the left thigh and leg came on; but this also gradually subsided, and in the course of five weeks from the date of the operation, the cure was complete. When the case was laid before the Academy last June, a year had elapsed since the period of cure. During that time, there had been no appearance of catamenia, and not even the 'prodromes' of the discharge had been experienced; whence M. Laserre concludes that this secretion must proceed altogether from the uterus, and not from the vagina. The patient has been able, we are informed, 'se livrer au coit comme avant, et elle y approuve la même jouissance et les mêmes sensations.'

M. Capuron, in his report to the Academy on the preceding case, expressed his conviction that the uterus had been really extirpated; but adds, that it would have been more satisfactory if the details of the examination, and of the characters of the prolapsed tumour, had been more minutely and explicitly given. With respect to the absence of the catamenia, M. Laserre has been rather precipitate in his conclusion that they will never return in future; and he appears not to be aware that in several of the recorded cases of extirpated uterus, the menstrual discharge has been renewed, after having been absent for several years.

M. Nacquart directed the attention of the members to a colored engraving, intended to represent the oozing of the menstrual discharge from the mucous surface of the vagina, in a thesis published by Osiander.—*Archives Generales, from Medico-Chirurg. Review.*

*Treatment of Burns, by M. Velpeau, with Diachylon Plaster.*—The ever active surgeon of the La Charité recommends the employment of strips of diachylon plaster to burned surfaces, in preference to the ordinary applications, such as cold water, solution of the chlorides, Carron oil, &c. The advantage which it possesses over these means, according to M. V., is its being well adapted for all the various stages or degrees of the injury—from the simple irritation of the skin, caused by scalding, to the complete destruction and mortification of it and the subjacent cellular tissue. He recommends that the strips of the plaster be renewed every two or three days, and assures us that burns 'du premier degré guérissent immédiatement'; those of the second degree in four or six days; those of the third degree in from eight to fifteen days; and those of the fourth degree in from fifteen to thirty days.

When the injury is attended with the destruction of the parts, and is therefore to be cured by ulceration and granulation, the process of cicatrization goes on under the plaster in several points at the same time, and not merely 'de proche en proche,' or from the circumference to the centre; as is ordinarily the case under the common dressings.—*Id.*